REMARKS

Claims 1-50 are pending in the application. The Office Action rejected all of the pending claims. More specifically, the Office Action rejected claims 1-13, 19-25, and 31-50 as unpatentable under 35 U.S.C. § 102 as anticipated by U.S. Patent No. 6,028,445 to Lawman ("Lawman"). The Office Action further rejected claims 14-18 and 26-30 as unpatentable under 35 U.S.C. § 103 over Lawman and U.S. Patent No. 6,748,456 ("Stanton"). At least for the reasons elaborated below, the Applicant respectfully submits that the Office Action does not set forth proper *prima facie* rejections.

The Office Action merely repeats the rejections from a previous office action. In response to the Applicant's remarks from the previous office action, the Office makes several assertions with which the Applicant respectfully disagrees.

More specifically, the Office Action states that "It is true that Lawman does not discuss buffers. Therefore, it is also true that Lawman discloses 'the configuration circuitry further adapted to program a function of the programmable logic device (PLD) *without using an input buffer* to store the configuration data (see 920 in Fig. 9 or 120 in Fig. 1).'" Office Action at 5. The Applicant disagrees.

The claim language at issue, for example, claim 1, recited (emphasis added), "A programmable logic device (PLD), the programmable logic device (PLD) comprising configuration circuitry, the configuration circuitry adapted to receive serial configuration data, the configuration circuitry further *adapted to* program a function of the programmable logic device (PLD) without using an input buffer to store the configuration data." On its face, the claim contemplates a configuration circuitry that is *adapted to* program a function of the PLD without using an input buffer to store the configuration data. In other words, the configuration circuitry is consciously and deliberately designed to not use an input buffer to store the configuration data.

In contrast, Lawman fails to discuss input buffers or any contemplation of avoiding their use, as the Office Action itself admits. *See* Office Action at 5 ("It is true that Lawman does not discuss

buffers."). Accordingly, Lawman cannot disclose a "configuration circuitry further *adapted to* program a function of the programmable logic device (PLD) without using an input buffer to store the configuration data" (emphasis added). The Office Action uses improper logic when it equates Lawman's lack of an apparatus that includes a "configuration circuitry further adapted to program a function of the programmable logic device (PLD) without using an input buffer to store the configuration data" with a teaching of such an apparatus.

Nevertheless, in order to more particularly point out and claim the inventive concepts, the Applicant with this paper amends claims 1, 21, and 41 to make even more clear the concept of configuring a PLD without using an input buffer to store the configuration data. For example, amended claim 1 recites, in part (emphasis added), "wherein the configuration circuitry *is configured to* program a function of the programmable logic device (PLD) without using an input buffer to store the configuration data." Claims 21 and 41 include similar amendments.

The Applicant respectfully submits that the amended claims make even more clear the concepts that the Applicants seeks to claim. Put another way, the amended claims recite a deliberate effort to provide, as claim 1 recites, for example, a configuration circuitry that "is configured to program a function of the programmable logic device (PLD) without using an input buffer to store the configuration data."

The Office Action further states:

> Applicant further argues that "[t]he Office Action fails to establish how dedicated configuration port 120 relates to the limitation at issue in claim 1." However, Lawman teaches at col. 8, lines 12+, that the configuration port (920 in Fig. 9) is used for configuring the user logic circuits of a portion of FPGA 910 and configuration device 930 configures decompression unit 940 with the ability to program the configuration memories of the other portion of FPGA 910 through configuration access port 935. Therefore, the configuration circuitry (920, 925, 935, 940) is adapted to program a function of the PLD or FPGA to store the configuration data (via 920). Response to argument for Claims 21 and 44 are similar as claim 1.

Office Action at 5.

The Applicant respectfully points out that the Office Action discusses part of the claim language at issue, but fails to establish how Lawman teaches a "configuration circuitry further *adapted to* program a function of the programmable logic device (PLD) without using an input buffer to store the configuration data," as claim 1 recited before amendment, or a "configuration circuitry [that] is configured to program a function of the programmable logic device (PLD) without using an input buffer to store the configuration data," as the amended claim 1 recites. Thus, the Applicant considers the statement in the Office Action, quoted above, as part of the improper argument that lack of the recited limitations in Lawman equates to a positive teaching of those limitations. If the Examiner had a different intention, the Applicant requests clarification. Similar remarks apply to claims 21 and 41.

With respect to claims 9 and 33, the Office Action states:

> Regarding claim 9, applicant argues on page 12, that Lawman fails to teach or suggest the limitation, "wherein the function of the programmable logic device (PLD) is programmed without stalling the configuration device." However, since it is not clear and not specific about the technical features of not stalling the configuration device, it was broadly interpreted. Therefore, it was interpreted that "at any non-stalling period of time of configuration, the configuration device 930 configures the user logic circuits of the PLD.

Office Action at 6. The Applicant respectfully submits that the Office Action errs in both the construction of the claim, and in the application of the prior art.

At the outset, the Applicant assumes that, when stating "it is not clear and not specific about the technical features of not stalling the configuration device," the Office Action referred to claim 9. If so, the Applicant disagrees that claim 9 is not "clear and not specific about the technical features of not stalling the configuration device." Claim 9 recites, in part, "a configuration device, the configuration device adapted to provide serial configuration data" and "a programmable logic device (PLD), comprising . . . a data converter circuit, the data converter circuit adapted to convert the serial configuration data into parallel configuration data to program a function of the programmable logic device (PLD), wherein the function of the programmable logic device (PLD) is programmed without stalling the configuration device."

The portion of claim 9 at issue here, "wherein the function of the programmable logic device (PLD) is programmed without stalling the configuration device," clearly states that the programming of the PLD occurs without stalling the configuration device. Several passages in the specification provide support and context for the claim language. If the Examiner has difficulty understanding the claim language, the Applicant requests a specific objection and statement of which portions of the statute the claim fails to satisfy, rather than a vague statement that "it is not clear and not specific about the technical features of not stalling the configuration device."

Second, the Office Action states that (presumably the limitation at issue of claim 9) "was interpreted that 'at any non-stalling period of time of configuration, the configuration device 930 configures the user logic circuits of the PLD.'" Office Action at 6. The proposed interpretation, however, appears to improperly reference portions of Lawman (e.g., the reference to "930") -- a cited prior art reference. The Office Action should instead consult Applicant's specification to construe any of the claims.

Third, as noted previously, to the Applicant's reading and understanding, Lawman does not discuss stalling of the configuration device. In fact, the Applicant cannot even find the words "stall" or "stalling" in Lawman.

Discussing claims 9 and 33 further, the Office Action states:

> Applicant further argues that Lawman does not teach a "data converter circuit" to convert the serial configuration data into parallel configuration data to program a function of the programmable logic device. However, Lawman teaches that the serial data is provided by configuration device to configure the user logic circuits of FPGA in order to improve the configuration speed (see col. 1, lines 30+; col. 6, lines 5+; col. 8, lines 12+). *In order to store the configuration memory with configuration data at high speed, it is inherent that the memory is accessed in parallel. Therefore, it is inherent that there is an inherent serial to parallel converter in the FPGA in order to store the serial data to the memory (see the US Patent referred at col. 5, line 30+).* Response to argument for Claim 33 is similar as claim 9.

Office Action at 6 (emphasis added). Again, the Applicant respectfully disagrees for at least the following reasons.

First, the Applicant fails to appreciate how "col. 1, lines 30+" of Lawman pertains to the limitation at issue. The cited passage does not appear to discuss data converter circuits or serial-to-parallel conversion. Similar arguments apply to Lawman's cited "col. 6, lines 5+)" and "col. 8, lines 12+)." If the Office wishes to rely on those passages, the Applicant requests clarification and a detailed discussion.

Second, the Office Action fails to show the alleged inherency. Instead, the Office Action makes an assertion, without any evidentiary support, that "[i]n order to store the configuration memory with configuration data at high speed, *it is inherent* that the memory is accessed in parallel." Office Action at 6 (emphasis added). The Office Action goes on to add, "Therefore, *it is inherent that there is an inherent serial to parallel converter* in the FPGA in order to store the serial data to the memory (see the US Patent referred at col. 5, line 30+)." Office Action at 6 (emphasis added).

The Office Action, however, fails to specify on which "US Patent referred at col. 5, line 30+" it seeks to rely, and also fails to cite any specific teachings of the alleged patent. The Office has the burden of setting forth a *prima facie* rejection. It may not satisfy that burden merely by making unsupported allegations of inherency. If the Office wishes to rely on the principles of inherency, the Applicant requests proper evidentiary support, such as appropriate references or an Examiner's declaration.

Independent claim 33 includes, among other limitations, "means for converting the decompressed data into parallel configuration data." Claims 34-40 depend, either directly or indirectly, on claim 33 and therefore include that limitation. For at least the reasons set forth above, the Office Action fails to set forth a *prima facie* rejection of those claims.

Finally, regarding claims 14-18 and 26-30, the Office Action states:

> In response to Applicant's argument that the Examiner's conclusion of obviousness if based on improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based on hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include

> knowledge gleaned only from the applicant's disclosure, such a reconsideration is proper.

Office Action at 6-7 (citing *In re McLaughlin*, 443 F.2d 1392; 170 USPQ 209 (CCPA 1971)). The Applicant respectfully disagrees for at least the following reasons.

First, even if one assumes that the passage quoted above properly sets forth the applicable law, a mere statement of it, without its application to specific facts, fails to support a proper obviousness rejection. Here, the Office Action merely makes a purported statement of the law but does not show how the purported rule of law applies to this application.

Second, even if one accepts the quoted statement, it does not address the Applicant's objection to the obviousness rejection. The quoted passage states in part, "[b]ut so long as it takes into account *only knowledge which was within the level of ordinary skill at the time the claimed invention was made*, and *does not include knowledge gleaned only from the applicant's disclosure*, such a reconsideration is proper." Office Action at 6-7 (emphasis added). Thus, it requires that the Office take into account "only knowledge which was within the level of ordinary skill at the time the claimed invention was made," rather than "knowledge gleaned only from the applicant's disclosure." *Id.*

Here, the Office Actions fails to show that it has done so. More specifically, the Office Action fails to set forth proper evidentiary support to establish that it "it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made." The Applicant requests that the Office show evidence of how the assertions made in the obviousness rejection rely on knowledge within the level of ordinary skill in the art at the time of the invention.

In any event, the Office Action fails to establish that the references set forth the limitations of the particular claims at issue. Specifically, claims 14-18 depend ultimately on independent claim 9, whereas claims 26-30 depend ultimately on independent claim 21. Because of at least the reasons set forth in this paper and Applicant's previous submissions, the cited references fail to teach or suggest the limitations of claims 9 and 21. Accordingly, the Office may not properly rely on the references in an obviousness rejection of claims 14-18 and 26-30.

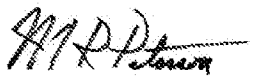
Because of at least the reasons articulated above, the Applicant respectfully submits that the presently pending claims are allowable. The Applicant therefore respectfully requests a prompt Notice of Allowance.

CONCLUSION

The Applicant submits that the claims as amended are in condition for allowance, and requests reconsideration of the application and a prompt Notice of Allowability. With the exception of the petition for an extension of time, the Applicant believes that no additional fees are due in connection with this paper. Should any fees under 37 CFR § 1.16-.21 be required for any reason relating to the enclosed materials, however, the Commissioner is authorized to deduct such fees from Deposit Account No. 50-3813/ALTR-024.

The examiner is invited to contact the undersigned at the phone number indicated below with any questions or comments, or to otherwise facilitate expeditious and compact prosecution of the application.

Respectfully submitted,



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